BUILDING CODE

(ADVISORY)

FOR TOWNS AND SMALL CITIES

PUBLISHED BY

STATE FIRE INSURANCE COMMISSION

ENGINEERING DIVISION

AUSTIN

1922

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FOREWORD

This advisory ordinance providing for fire limits and the construction and equipment of buildings is an abbreviation of modern requirements representing best practice in building construction. It has been compiled with special reference to the needs of cities and towns having a population of 20,000 or less, and is designed to arrest present hazardous practices and to serve as a reasonable regulation of ordinary building construction in communities where congestion of values is not abnormal.

Attention is directed to the fact that it does not constitute a Building Code in the sense in which that term is generally understood; therefore, it must not be interpreted as a warrantable minimum standard for cities, which by reason of present size, or rapid growth, obviously require higher safeguards for public safety.

Neither completeness nor perfection is claimed for this ordinance, but it contains the advice and recommendations of numerous building experts and fire engineers. One of the constant thoughts has been to make the ordinance as brief in text and as broad in scope as is consistent with the limitations of its purpose. We believe that it will prove a reliable guide for safe building construction, and so recommend it.

STATE FIRE INSURANCE COMMISSION.

July 1, 1922.

AN ORDINANCE

TO REGULATE THE CONSTRUCTION, ALTERATION, MAINTENANCE, REPAIR, AND REMOVAL OF BUILDINGS WITHIN THE CITY OF ....., AND PRESCRIBING PENALTIES FOR VIOLATIONS.

Be it ordained by the City Council or Commission of the City of .....

Section 1. **Fire Limits.**—The provisions of this ordinance shall apply to and be co-extensive with the territory within the boundaries now designated, or which may hereafter be established as the fire limits of the city of....., except such provisions as are by special reference made applicable to all the territory within the corporate limits of said city, and the said fire limits as now established are hereby declared to be as follows:

Beginning at.....

.....

.....

Section 2. **New Buildings and Buildings to Be Altered.**—No wall, structure, building, or part thereof, shall hereafter be constructed in the city of..... except in conformity with the provisions of this ordinance. No building already erected or hereafter to be built in said city shall be raised, altered, removed, or built upon in any manner that would be in violation of any of the provisions of this ordinance, or the approval issued thereunder.

Section 3. **Permit Required.**—Before the erection, construction, or alteration of any building, structure, or wall, or of any part thereof, or of any platform, staging or flooring to be used for standing or seating purposes, is commenced the owner or lessee or agent of either, or the architect or builder employed by such owner or lessee in connection with the proposed erection or alteration, shall apply to the Building Inspector for a permit to do such work.

Structures hereafter erected without permit, or not in conformity with this ordinance, shall be removed.

No building shall be moved until a permit has been obtained from the Building Inspector; and such official

shall not issue such permit if, in his judgment, the proposed new location of the building would seriously increase the fire hazard of the surrounding buildings.

Each building permit shall recite this section.

Section 4. **Incombustible Walls, Cornices, and Roofs, Required Within Fire Limits.**—Every building hereafter erected or enlarged within the fire limits shall be enclosed on all sides with walls constructed wholly of stone, well burned brick, terra cotta, concrete, or other equivalent incombustible materials; and shall have the roof, also the top and sides of all roof structures, including dormer windows, covered with incombustible material. All cornices shall be of incombustible material.

Section 5. **Permissible Wooden Structures Within Fire Limits.**—No frame or wooden structure shall hereafter be built within the fire limits as given herein, or as they may hereafter be established, except the following; and all roofs placed upon such buildings or structures shall have an incombustible covering:

(a) Temporary one-story buildings for use of builders.

(b) One-story sheds open on the long side, not over 15 feet high, with sides covered with incombustible material, and with an area not exceeding 500 square feet. A wooden fence shall not be used to form the back or side of such sheds.

(c) Wooden fences not over 10 feet high.

(d) Piazzas or balconies not exceeding 10 feet in width, not extending more than 3 feet above the second-story floor beams. No such structure shall extend beyond the lot line, or be joined to any similar structure of another building.

(e) Bay windows when covered with incombustible material.

(f) Small outhouses not exceeding 150 square feet in area, and 8 feet in height. Wooden sheds or outhouses shall not be located within 5 feet of any lot line, nor less than 30 feet from any other building over one-story high.

No frame building shall be moved from without to within the fire limits.

Buildings with wooden frame work clad with sheet metal, stuccoed, or veneered with brick, shall be classed as frame buildings.

Section 6. **Repairing Frame Buildings Within Fire Limits.**—Any existing frame building within the fire

limits, which may hereafter be damaged by fire, decay or otherwise to an amount greater than one-third of its present value, exclusive of the foundation, shall not be repaired or rebuilt, but shall be removed.

Section 7. **Fire-Resistive Buildings Required for Certain Occupancies Within Fire Limits.**—No building within the fire limits shall hereafter be occupied as a public garage, automobile repair shop or dry cleaning establishment, unless it be of fireproof construction. Provided that buildings only one story in height may be so occupied if properly cut off from other occupancies, and if the floor is of non-combustible material.

Section 8. **Limits of Height and Area.**—No building hereafter erected or altered shall exceed three stories or 45 feet in height, unless it be of fireproof construction.

The floor area between fire walls of non-fireproof buildings shall not exceed the following: When fronting on one street, 6000 square feet; when fronting on two streets, 7500 square feet; and when fronting on three streets 9000 square feet. These area limits may be increased under the following conditions as indicated:

For fireproof buildings, 100 per cent.

For buildings fully equipped with an approved system of automatic sprinklers, 200 per cent.

Section 9. **Walls.**—All exterior or division walls of buildings hereafter erected, shall be of sufficient thickness to support the load to be carried; but in no case shall a brick, stone, unreinforced concrete, or hollow block wall be less than 12 inches thick. Provided that, permit may be issued for the erection of buildings with 8-inch brick walls, where the area is small and the height not more than one story, if in the judgment of the Building Inspector such thickness will provide satisfactory fire-resistiveness for the occupancy involved.

Walls, excepting party walls, for all buildings of other than the dwelling house class, shall have the upper story not less than 12 inches thick, increasing 4 inches in thickness for each two stories or fraction thereof below. No two-story increment shall exceed 30 feet in height.

In all buildings, except dwellings, frame buildings, and skeleton construction, party walls which serve as bearing walls on both sides, shall be not less than 16 inches thick in the upper two stories or upper

show windows, shall be protected as prescribed in this section when within 20 feet of another building.

All exterior windows more than 75 feet above the curb, unless fronting on a street 30 feet or more in width, shall have incombustible frames and sash, with wired glass.

Occupants of buildings shall close all exterior and interior fire doors, shutters and windows at the close of business each day.

Section 13. **Stairway and Elevator Shafts.**—In all buildings, hereafter erected, except private dwellings, which are used above the first floor for business purpose or for public assemblage, or for any purpose whatever if over three stories high, the stair shaft shall be separately and continuously enclosed by incombustible partitions. Open stairs may be permitted from the first to the second floor for ornamental effect. Elevator shafts in all buildings hereafter erected shall be enclosed in the same manner. The enclosing partitions shall be constructed of brick or other fire-resistive material approved by the Building Inspector, and all mortar used in the construction shall be cement mortar. No such partition, if hollow, shall be less than 6 inches thick, no brick partition less than 8 inches thick, and no other solid partition less than 4 inches thick.

If the building is of ordinary wood joisted construction, the stair, elevator, or hoistway shafts may be enclosed by approved hollow or solid partition blocks not less than 3 inches thick, set in Portland cement mortar; or by 4-inch stud partitions, covered on one side with not less than ¾-inch of Portland cement plaster on metal lath; or by other types of partitions of equivalent construction. All lath used for such partitions shall be of galvanized steel weighing not less than 54 ounces per square yard. Wire lath shall be not less than No. 20 gauge, and sheet metal lath not less than No. 24 gauge. All such partitions shall be fire-stopped with incombustible material the full depth of the floor beams at each floor level.

All door openings in stair and elevator enclosures of fireproof buildings shall be protected by approved automatic or self-closing fire doors mounted with wrought iron or steel hardware, and shall be securely attached to the wall or partition, or to substantial incombustible frames anchored thereto. If glass panels be used in such doors, they shall be of wired glass not exceeding 720 square inches in area; interior shaft

windows shall not be permitted. In buildings of non-fireproof construction the door openings in such enclosures shall be protected by either automatic or self-closing doors.

Doors opening into stairway shaft shall swing in the direction of exit travel and shall be at least 36 inches wide.

If, in the opinion of the Building Inspector, it is necessary to preserve an open elevator or hoistway in any building, the floor openings through which it passes shall be equipped with automatically closing trap doors not less than 1½ inches thick, made of two thicknesses of matched boards, covered on the underside with tin; the trap doors when closed shall extend beyond the opening on all sides. Such trap doors shall be protected by a substantial guard or gate, which shall be kept closed at all times except when in actual use.

Section 14. **Skylights Over Stairways and Elevator Shafts.**—Where a stairway, elevator, or dumb waiter shaft extends through the roof and is covered by a skylight, the skylight shall be constructed with incombustible frame and sash, glazed with ordinary thin glass, and shall be protected by a galvanized wire screen with a mesh not exceeding one inch, and the wire not smaller than No. 12 gauge. The screen shall have metal supports and shall be placed not less than 6 inches above the skylight. Instead of a skylight, a window may be placed in the side of the shaft above the roof which is furthest removed from a property line. The window shall have incombustible frame and sash, and be glazed with thin glass.

Section 15. **Floor Lights.**—Except in dwellings, all openings hereafter made in floors for the transmission of light to floors below shall be covered with glass set in metal frames and bars. The glass shall be not less than ¾-inch in thickness, and if any glass measures more than 16 square inches there shall be a rigid wire mesh either in the glass or under it.

Section 16. **Light, Vent and Dumb Waiter Shafts.**—In every building hereafter erected or altered, except frame buildings, all walls or partitions forming interior light or vent shafts shall be built in accordance with the requirements for stair and elevator shafts in new buildings as specified in the first paragraph of Section 13. The walls of dumb waiter shafts, except those which extend only one story above the base-

show windows, shall be protected as prescribed in this section when within 20 feet of another building.

All exterior windows more than 75 feet above the curb, unless fronting on a street 30 feet or more in width, shall have incombustible frames and sash, with wired glass.

Occupants of buildings shall close all exterior and interior fire doors, shutters and windows at the close of business each day.

Section 13. **Stairway and Elevator Shafts.**—In all buildings, hereafter erected, except private dwellings, which are used above the first floor for business purpose or for public assemblage, or for any purpose whatever if over three stories high, the stair shaft shall be separately and continuously enclosed by incombustible partitions. Open stairs may be permitted from the first to the second floor for ornamental effect. Elevator shafts in all buildings hereafter erected shall be enclosed in the same manner. The enclosing partitions shall be constructed of brick or other fire-resistive material approved by the Building Inspector, and all mortar used in the construction shall be cement mortar. No such partition, if hollow, shall be less than 6 inches thick, no brick partition less than 8 inches thick, and no other solid partition less than 4 inches thick.

If the building is of ordinary wood joisted construction, the stair, elevator, or hoistway shafts may be enclosed by approved hollow or solid partition blocks not less than 3 inches thick, set in Portland cement mortar; or by 4-inch stud partitions, covered on one side with not less than ¾-inch of Portland cement plaster on metal lath; or by other types of partitions of equivalent construction. All lath used for such partitions shall be of galvanized steel weighing not less than 54 ounces per square yard. Wire lath shall be not less than No. 20 gauge, and sheet metal lath not less than No. 24 gauge. All such partitions shall be fire-stopped with incombustible material the full depth of the floor beams at each floor level.

All door openings in stair and elevator enclosures of fireproof buildings shall be protected by approved automatic or self-closing fire doors mounted with wrought iron or steel hardware, and shall be securely attached to the wall or partition, or to substantial incombustible frames anchored thereto. If glass panels be used in such doors, they shall be of wired glass not exceeding 720 square inches in area; interior shaft

windows shall not be permitted. In buildings of non-fireproof construction the door openings in such enclosures shall be protected by either automatic or self-closing doors.

Doors opening into stairway shaft shall swing in the direction of exit travel and shall be at least 36 inches wide.

If, in the opinion of the Building Inspector, it is necessary to preserve an open elevator or hoistway in any building, the floor openings through which it passes shall be equipped with automatically closing trap doors not less than 1½ inches thick, made of two thicknesses of matched boards, covered on the underside with tin; the trap doors when closed shall extend beyond the opening on all sides. Such trap doors shall be protected by a substantial guard or gate, which shall be kept closed at all times except when in actual use.

Section 14. **Skylights Over Stairways and Elevator Shafts.**—Where a stairway, elevator, or dumb waiter shaft extends through the roof and is covered by a skylight, the skylight shall be constructed with incombustible frame and sash, glazed with ordinary thin glass, and shall be protected by a galvanized wire screen with a mesh not exceeding one inch, and the wire not smaller than No. 12 gauge. The screen shall have metal supports and shall be placed not less than 6 inches above the skylight. Instead of a skylight, a window may be placed in the side of the shaft above the roof which is furthest removed from a property line. The window shall have incombustible frame and sash, and be glazed with thin glass.

Section 15. **Floor Lights.**—Except in dwellings, all openings hereafter made in floors for the transmission of light to floors below shall be covered with glass set in metal frames and bars. The glass shall be not less than ¾-inch in thickness, and if any glass measures more than 16 square inches there shall be a rigid wire mesh either in the glass or under it.

Section 16. **Light, Vent and Dumb Waiter Shafts.**—In every building hereafter erected or altered, except frame buildings, all walls or partitions forming interior light or vent shafts shall be built in accordance with the requirements for stair and elevator shafts in new buildings as specified in the first paragraph of Section 13. The walls of dumb waiter shafts, except those which extend only one story above the base-

ment or cellar, shall be of fire-resistive construction, and shall be not less than 3 inches thick if constructed of brick, hollow or solid partition blocks or of steel studding and metal lath with ¾-inch of Portland cement plaster on each side; or a 2-inch solid metal lath and Portland cement plaster wall may be permitted, if securely anchored at each floor.

Where a dumb waiter shaft does not extend through the roof the top of the shaft shall be of fire-resistive construction of the same thickness as the walls of the shaft.

All openings in dumb waiter shafts shall be protected by doors mounted in incombustible frames securely anchored to the walls.

The walls of all light and vent shafts hereafter erected shall extend not less than 2 feet above the roof level. Masonry walls shall be properly coped.

Section 17. **Roof Covering.**—Every building hereafter erected within the corporate limits shall have an incombustible roof covering, and no existing wooden shingle roof, if damaged more than one-third, shall be renewed or repaired with other than incombustible roof covering. All incombustible roofing material used must meet the approval of the Building Inspector.

Section 18. **Roof Openings.**—All openings in roofs for the admission of light or air, other than those provided for in Sections 14 and 16, shall have incombustible frames and sash with wired glass.

Section 19. **Exits Required.**—The term "floor area" as used in this section shall mean the entire floor space between exterior walls and fire walls.

In every building hereafter erected, except in private dwellings, each floor area above the first shall be provided with at least two means of egress remote from each other.

All exit doors in schools, hospitals, theaters and other places of public assemblage shall open outwards.

The means of egress in all buildings three or more stories in height and so occupied as to bring them within the purview of the State Fire Escape Law, shall conform to said State law and the specifications promulgated thereunder, and the Building Inspector shall not grant a permit, as provided in Section 3 of this ordinance, for the erection of any building unless the plans and specifications for egress in such building shall conform to the requirements of the State Fire Escape Law.

Section 20. **Moving Picture Theaters.**—The Building Inspector shall not grant a permit for the erection or alteration of any building to be used as a moving picture theater, or in which moving pictures are to be exhibited, within the corporate limits, unless the plans and specifications for the installation and operation of said moving picture theater, or for the exhibition of moving pictures, shall conform to the rules and regulations promulgated by the State Fire Marshal for safeguarding against fire and panic.

A copy of said rules and regulations, as approved by the State Fire Marshal, shall be kept on file by the city secretary, and be subject to inspection as a public document of the city.

The Building Inspector or the City Fire Marshal shall make weekly inspection of each and every moving picture theater or place where moving pictures are exhibited, for the purpose of ascertaining if the rules and regulations for safety against fire and panic are being violated. In the event said rules and regulations are not conformed to with respect to the arrangement of the building, and the installation and operation of all the equipment incident to the operation of said moving picture theater, or the exhibition of moving pictures, the city electrician, the Building Inspector, or the city fire marshal, is hereby empowered to cut off all electrical current from the room or building, and the supply of electrical current shall not be restored by anyone until all of said rules and regulations for safety against fire and panic are complied with.

Section 21. **Fire Stops.**—At each floor level, in all buildings hereafter erected, all stud walls, partitions, furrings and spaces between joists where they rest on division walls or partitions shall be fire-stopped with incombustible material in a manner to completely cut off communication by fire through concealed spaces. Such fire-stopping shall extend the full depth of the joists and at least 4 inches above each floor level. Stair carriages shall be fire-stopped at least once in the middle portion of each run.

Section 22. **Areaways.** — All areaways shall be guarded with suitable railing, or be protected by incombustible covers or gratings. If gratings be used. they shall have a wire screen of not more than ½-inch mesh securely attached to the underside.

Areaways shall not project beyond the building line.

Section 23. **Frame Buildings.**—No frame building

hereafter erected or altered, in corporate limits, shall exceed two stories or 30 feet in height, except that private dwellings may be three stories or 40 feet high.

No frame building hereafter erected for any occupancy other than for temporary exhibition purposes, shall cover a ground area exceeding 7500 square feet.

In no case shall a frame building be erected within 3 feet of the side or rear lot line, nor within 6 feet of another building, unless the space between the studs on such side be filled solidly with not less than 2½ inches of brick work or other equivalent incombustible material.

In rows of frame houses, the dividing walls or partitions between houses shall be built of brick, terra cotta, concrete or other incombustible material; or they may be built with 4-inch studs, filled solidly with brick work laid in mortar, or with other incombustible material. If lath be used on such partitions, it shall be metal lath. Such dividing partitions shall rest on masonry walls and shall extend to underside of roof boards. A flush mortar joint shall be made between the roof boards and the wall or partition.

Buildings with wooden frame work clad with sheet metal, stuccoed, or veneered with brick, shall be classed as frame buildings.

Outside the fire limits, when any building is to be erected of brick, stone, hollow block, or concrete, and could under this ordinance be constructed of wood, the Building Inspector is hereby authorized and directed to allow reasonable modifications of this ordinance relating to brick buildings, in consideration of the use of incombustible material instead of wood. Such modifications, however, shall not permit variations from the requirement of Sections 13, 19 and 26 of this ordinance.

Section 24. **Electrical Installations.**—All electrical installations shall be in accordance with the rules and regulations promulgated by the State Fire Insurance Commission, and no installation of electrical equipment shall be made, except in conformity thereto.

Section 25. **Chimneys and Fireplaces.**—Except as herein provided, all chimneys in every building hereafter erected, and all chimneys hereafter altered or rebuilt, shall be constructed of brick, stone, or reinforced concrete. No masonry chimney shall have walls less than 8 inches thick unless it be lined on the inside with well burned terra cotta or fire-clay chimney tile set in Portland cement mortar, in which case the wall

shall be not less than 4 inches thick. The lining shall be continuous from the bottom of the flue to its extreme height.

No chimney shall be corbeled out more than 8 inches from a brick wall, and such corbeling shall consist of at least five courses of brick.

Brick set on edge shall not be permitted in chimney construction.

Chimneys of all low-pressure boilers, or furnaces, also the smoke flues for baker's ovens, large cooking ranges, large laundry stoves, and all flues used for similar purposes, shall be at least 8 inches in thickness and be lined continuously on the inside with well-burned terra cotta or fire-clay chimney tile set in Portland cement mortar. All such chimneys shall be capped with terra cotta, stone, concrete, or cast iron.

The smoke flue of every high-pressure steam boiler, and every appliance producing a corresponding temperature in a flue, if built of brick, stone, reinforced concrete, or other approved masonry, shall have walls not less than 12 inches thick, and the inside 4 inches of such walls shall be fire-brick, laid in fire mortar, for a distance of at least 25 feet from the point where the smoke connection of the boiler enters the flue.

All chimneys shall project at least 3 feet above the point of contact with a flat roof, or 2 feet above the ridge of a pitched roof.

Portland cement mortar only shall be used in the construction of chimneys.

No chimney in any building shall have wooden supports of any kind. Supports shall be incombustible and shall rest upon the ground or the foundation.

All chimneys which are dangerous from any cause shall be repaired, and made safe, or taken down.

Metal smokestacks may be permitted for boilers, furnaces, and similar apparatus where large hot fires are used, provided they have a clearance from all combustible material of not less than one-half the diameter of the stack, but not less than 15 inches, unless the combustible material be properly guarded by loose-fitting metal shields, in which case the distance shall be not less than 12 inches. Where such a stack passes through a roof, it shall be guarded by a galvanized iron ventilating thimble extending from at least 9 inches below the underside of the ceiling or roof beams to at least 9 inches above the roof, and the diameter of the ventilating thimble shall be not less than 36

inches greater than that of the smokestack. Metal smokestacks shall not be permitted to pass through floors.

The fireback of every fireplace hereafter erected shall be not less than 8 inches in thickness of solid brick work, nor less than 12 inches of stone lined with fire brick. When a grate is set in a fireplace, a lining of fire brick at least 2 inches in thickness shall be added to the fireback; or soapstone, tile or cast iron may be used, if solidly backed with brick or concrete.

All flue holes when not in use shall be closed with tight-fitting metal covers.

Section 26. **Wooden Beams Separated from Masonry Chimneys.**—No wooden beams or joists shall be placed within 2 inches of the outside face of a chimney or flue, whether the same be for smoke, air, or any other purpose.

No woodwork shall be within 4 inches of the back wall of any fireplace.

All spaces between the chimney and the wooden beams shall be solidly filled with mortar, mineral wool, or other incombustible material.

The header beam, carrying the tail beams of a floor, and supporting the trimmer arch in front of a fireplace, shall be not less than 20 inches from the chimney breast.

No wooden furring or studding shall be placed against any chimney; the plastering shall be directly on the masonry, or on metal lathing.

Woodwork fastened to plaster which is against the masonry of a chimney shall have a layer of asbestos board at least $\frac{1}{8}$-inch thick placed between the woodwork and the plaster.

Section 27. **Smoke Pipes.**—No smoke pipe shall be within 9 inches of any woodwork or any wooden lath and plaster partition or ceiling.

Where smoke pipes pass through a wooden lath and plaster partition, they shall be guarded by galvanized iron ventilated thimbles at least 12 inches larger in diameter than the pipes, or by galvanized iron thimbles built in at least 8 inches of brick work or other incombustible material.

No smoke pipe shall pass through any floor, or a roof having wooden frame work or covering.

Section 28. **Hot Air Pipes and Registers.** — All heater pipes from hot air furnaces where passing through combustible partitions, or floors, must be

doubled tin pipes with at least 1-inch air space between them. Horizontal hot air pipes leading from furnace shall be not less than 6 inches from any woodwork, unless the woodwork be covered with loose-fitting tin, or the pipe covered with at least ½-inch of corrugated asbestos, in which latter cases the distance from the woodwork may be reduced to not less than 3 inches.

No hot air pipe shall be placed in a wooden stud partition or any wooden enclosure unless it be at least 8 feet horizontal distance from the furnace. Hot air pipes contained in combustible partitions shall be placed inside another pipe arranged to maintain ½-inch air space between the two on all sides, or be securely covered with ½-inch of corrugated asbestos. Neither the outer pipe nor the covering shall be within 1 inch of wooden studding, and no wooden lath shall be used to cover the portion of the partition in which the hot air pipe is located. Hot air pipes in closets shall be doubled, with a space of at least 1 inch between them on all sides.

Every hot air furnace shall have at least one register without valve or louvres.

A register located over a brick furnace shall be supported by a brick shaft built up from the cover of the hot-air chamber; said shaft shall be lined with a metal pipe; and no woodwork shall be within 3 inches of the outer face of the shaft.

A register box placed in the floor over a portable furnace shall have an open space around it of not less than 4 inches on all sides, and be supported by an incombustible border.

Hot air registers placed in any woodwork or combustible floors shall be surrounded with borders of incombustible material, not less than 2 inches wide, securely set in place.

The register boxes shall be of metal, and be double; the distance between the two shall be not less than 1 inch; or they may be single if covered with asbestos not less than ⅛-inch in thickness, and if all woodwork within 2 inches be covered with tin.

Cold air ducts for hot air furnaces shall be made of incombustible material.

Section 29. **Steam and Hot Water Pipes.**—No steam or hot water pipe shall be within 1 inch of any woodwork. Every steam or hot water pipe passing through combustible floors, or ceilings, or wooden lath and plaster partitions, shall be protected by a metal

tube 1 inch larger in diameter than the pipe and be provided with a metal cap. All wooden boxes, or casings enclosing steam or hot water heating pipes, or wooden covers to recesses in walls in which steam or hot water heating pipes are placed, shall be lined with metal.

Section 30. **Dry Rooms.**—No combustible material shall be permitted in the construction of any dry room hereafter erected, in which a temperature of 125 degrees Fahr. or over may exist. If a temperature under 125 degrees Fahr. is to be used, the dry room may be constructed of wood, but it shall be lined throughout with $\frac{1}{8}$-inch asbestos, covered with sheet metal.

If windows are placed in walls or ceilings of dry rooms they shall be of wired glass set in fixed incombustible sash and frames.

Section 31. **Stoves and Ranges.**—No kitchen range or stove in any building shall be placed less than 3 feet from any woodwork or wooden lath and plaster partition, unless the woodwork or partition is properly protected by metal shields, in which case the distance shall be not less than 18 inches. Metal shields shall be loosely attached, thus preserving an air space behind them.

Hotel and restaurant ranges shall be provided with a metal hood, placed at least 9 inches below any wooden lath and plaster or wooden ceiling, and have an individual pipe outlet connected with a good brick flue. The pipe shall be protected by at least 1 inch of asbestos covering, or its equivalent.

Combustible floors under coal ranges and similar appliances without legs, such as mentioned in Section 32, in which hot fires are maintained, shall be protected by a sheet of metal, or a ½-inch layer of abestos building lumber, which shall be covered with not less than 4 inches of masonry set in cement mortar. Such masonry shall consis of one course of 4-inch hollow terra cotta, of two courses of brick or terra cotta, at least one of which shall be hollow and be laid to preserve a free circulation of air throughout the whole course. Concrete may be substituted for a course of solid brick if desired. The masonry work shall be covered by sheet metal of not less than No. 26 gauge, so arranged as not to obstruct the ventilating passages beneath. Such hearths shall extend at least 24 inches in front and 12 inches on the sides and back of the range or similar heating appliance.

All coal stoves or ranges, with legs, shall be set on incombustible material, which shall extend at least 12 inches in front.

Section 32. **Heating Furnaces and Appliances.**—Any woodwork, wooden lath and plaster partition or ceiling within 4 feet of the sides or back, or 6 feet from the front of any heating boiler, furnace, bakery oven, coffee roaster, fire-heated candy kettle, laundry stove, or other similar appliance, shall be covered with metal to a height of at least 4 feet above the floor. This covering shall extend the full length of the boiler, furnace, or heating appliance, and to at least 5 feet in front of it. Metal shields shall be loosely attached, thus preserving an air space behind them. In no case shall such combustible construction be permitted within 2 feet of the sides or back of the heating appliance, or 5 feet in front of same.

No furnace, boiler, range, or other heating appliance shall be placed against a wall furred with wood.

Heating boilers shall be encased on sides and top by an incombustible protective covering not less than 1½ inches thick.

Section 33. **Open-Flame Heating Devices.**—All gas, gasoline, oil, or charcoal-burning stoves or heating devices, shall be placed on iron stands at least 6 inches above combustible supports, unless the burners are at least 5 inches above the base, with metal guard plates 4 inches below the burners.

No open-flame heating or lighting device shall be used in any room where gasoline or other volatile inflammable fluids are stored or handled.

Section 34. **Gas Connections.**—Gas connections to stoves and similar heating devices shall be made of rigid metal pipes. For small portable gas heating devices, flexible metal or rubber tubing may be used when there is no valve or other shut-off on the device.

Section 35. **Trash Receptacles.**—All receptacles for ashes, trash, garbage and refuse shall be of galvanized iron or other incombustible material.

Section 36. **Vent Flues.**—Vent flues or ducts, for the removal of foul or vitiated air, in which the temperature of the air cannot exceed that of the rooms, shall be constructed of metal or other incombustible material, and shall not be placed nearer than 1 inch to any woodwork, and no such flue shall be used for any other purpose.

Section 37. **Safety of Design.**—All parts of every

building shall be designed to safely carry the loads to be imposed thereon, and shall in all other respects conform to good engineering practice.

Section 38. **Unsafe Buildings.**—Every building, structure, or part thereof, which shall appear to the Building Inspector to be dangerous, by reason of bad condition of walls, defective construction, overloaded floors, lack of guards against fire or other causes, shall be held to be unsafe. The Building Inspector shall immediately notify the owner or lessee to cause the same to be made safe, and shall also affix a notice of the dangerous character of the structure in a conspicuous place on the exterior wall of such building, and no person shall remove or deface such notice so affixed. The owner or party having an interest in such unsafe building or structure, being notified thereof in writing by the Building Inspector, shall immediately cause the same to be made safe and secure, and if any such building shall be used for any purpose requiring a license therefor, the mayor may revoke said license on neglect of the owner to comply with the notice served as herein provided. Where the public safety requires immediate action, the Building Inspector may enter upon the premises, with such assistance as may be necessary, and cause the said structure to be made secure or torn down and removed without delay, at the expense of such owner or party interested. The Building Inspector is hereby given full power to order the fire department to assist in such work.

Section 39. **Duties of Enforcing Officer.** — The Building Inspector is hereby authorized and empowered:

First. To enforce all ordinances relating to the construction, equipment, management, and condition of all property within said city of.....; and it is hereby made the duty of the departments of police, health, and fire to assist in the enforcement of this ordinance, and each of these departments shall, so far as possible, act in connection with the Building Inspector in such enforcement.

Second. To supervise the construction or reconstruction of all buildings.

Third. To report monthly to the mayor or city council regarding the condition of the town on all matters pertaining to fire prevention.

Section 40. **Penalty for Violations.**—Any and all persons who shall violate any of the provisions of this ordinance or fail to comply therewith, or who shall

violate or fail to comply with any order or regulation made thereunder, or who shall build in violation of any detailed statement or specifications or plans submitted and approved thereunder, or any certificate or permit issued thereunder, shall severally for each and every such violation and non-compliance, respectively, forfeit and pay a penalty in the sum of not less than ten nor more than one hundred dollars. The imposition of one penalty for any violation of this ordinance shall not excuse the violation, or permit it to continue; and all such persons shall be required to correct or remedy such violations or defects within a reasonable time; and when not otherwise specified each ten days that prohibited conditions are maintained shall constitute a separate offense.

The application of the above penalty shall not be held to prevent the enforced removal of prohibited conditions, as provided in Section 3 of this ordinance.

Section 41. **Conflicting Ordinances Repealed.**—All ordinances and parts of ordinances inconsistent herewith are hereby repealed.

Section 42. **Date of Effect.**—This ordinance shall take effect and be in force from and after its passage and legal publication.

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